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# Developing Space Doctrine

By Ed Zehner

"In all environments, the initiative of Army leaders, agility of Army units, depth of Army resources, and versatility of Army Soldiers combine to allow Army forces to conduct decisive full spectrum operations ... Space capabilities are thoroughly integrated into the force structure in order to enable all of these Army operations, and are essential for mission accomplishment." FM 3-14.00

Space support to Army operations is a critical element of the continuing success of Army land warfighting dominance. It is so pervasive it seems awkward to use one term, Space support, to describe all that is going on. Space-based capabilities support literally every Army operation because we have learned to take advantage of the impact Space can bring. The pages of this and every issue of *the Army Space Journal* testify to the many applications and undeniable utility of Space capabilities to terrestrial warfare. It would take volumes to document the many contributions Space makes to Army operations, and of course the work could never be finished.

Voluminous or not, and finished or not, significant portions of this information must be captured and distilled into doctrine. The Army runs on doctrine, and for good reason. The wise recording of what we know gives us an avenue to remind ourselves so lessons aren't lost, and to teach those who don't yet know.

Since writing and teaching everything about Space would hamper rather than help most Soldiers, we distill the knowledge into doctrine. (Not a listing of the basic facts about Space, or even checklists providing detailed procedures for the Space user.) Read a step, do a step, eat a banana. In other words, doctrine is intended to inform the Soldier not what to think (information) but how to think about Space. Tactics, techniques, and procedures go a step deeper in detail, laying out how to employ forces, methods of employing equipment and personnel, and how Soldiers perform tasks. This is much more than simple descriptions of Space capabilities, and is the purpose of FM 3-14.00, Space Support to Army Operations.

FM 3-14.00 is the Army implementation of Joint

Publication (JP) 3-14, Joint Doctrine for Space Operations, 9 August 2002. The field manual is consistent with JP 3-14. For example, joint Space operations are divided into four areas: force enhancement, Space control, Space force support, and force application. Army doctrine adopts that structure. In addition, FM 3-14.00 is entirely consistent with higher level Army doctrine in FM 1 and FM 3-0. Army Space operations are carefully doctrinally integrated into other Army operations, they never serve their own purpose (Space for the sake of Space) nor is it intended for Space to be a separate entity which is then stovepiped into other operations.

Finally, FM 3-14.00 is informed by Air Force doctrine, AFDD 2-2, and other writings. Army terminology sometimes differs from that of the Air Force, but the general principles are the same. For example, the Air Force describes Space control in terms of offensive and defensive counter-space, which makes it consistent with air superiority doctrine. We use the term Space control consisting of protection, prevention, negation and surveillance.

"Army Space power is the ability to control and exploit Space assets to contribute to U.S. land warfighting dominance. Army Space power is a terrestrial entity and is land warfare centric. These two primary functions – control and exploit Space — form the basis for leveraging Space capabilities to enhance Army operations." FM 3-14.00

FM 3-14.00 is organized similarly to other Army doctrine manuals. Part I is principles, Part II is tactics, techniques and procedures, and there are several informative appendices which are neither doctrine nor TTP per se, but are very useful in describing what the Army is about in Space. According to Training and Doctrine Command Regulation 25-36, "Doctrine is the fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. These principles reflect the Army's collective wisdom regarding past, present and future operations. They focus on how to think about operations, not what to think." Therefore, Part I of FM 3-14.00 lays out the required foundations of Space capabilities such as information on satellite orbits and basic terms and organizations involved in

Army Space, and then explains the Space based capabilities the Army uses (force enhancement) and the rationale for controlling Space.

The doctrinal principle of controlling and exploiting Space for Army purposes is then established. "Exploiting Space" is broken down to its parts, and the direct connection between Space capabilities and Army operations is made, although only in general terms and citing representative examples, again because it would require volumes to chronicle all the ways Space contributes to Army land warfighting dominance. Other principles are developed in similar fashion.

Part II is traditional TTP, but if you think TTP are simply lists of helpful steps to get it right, you will be disappointed. TR 25-36 relates that tactics are "descriptive" and require "the application of judgment." Techniques, methods of employment, are more detailed but will still "At times ... require the application of judgment."

Unfortunately, just when a theme was developing we have procedures, detailed courses of action, which "may not require the application of judgment." Overall, however, the intent of TTP is not to provide mindless checklists allowing the Soldier to employ Space capabilities without thinking, and in fact that is not what you get from this FM's TTP either.

This TTP is written from the standpoint of the unit G-3. When they crack open their Operational Plan, as the battlefield takes shape and the commander decides how best to respond to the situation, the many combinations of potential maneuvers and weapon systems are considered. Space capabilities are among them. As specific objectives materialize and courses of action are weighed, the G-3 evaluates which Space capabilities could be employed. It follows the Army operations process of; plan, prepare, execute and assess. Again, it is not a checklist on how U.S. Army Space and Missile Defense Command goes to war, it is a process which the Army field command can use to factor targeted Space capabilities in to its operation.

Finally, the FM includes seven informative appendices. The first details the process used for the Space contribution to the commander's IPB. This is a unique piece of work not yet documented in general IPB doctrine and so is very valuable. The second appendix covers the following Army Space capabilities: U.S. Space and Missile Defense Command Operations Center, Blue Force Tracking Mission Management Center, Satellite Communications and SATCOM Support Centers, Wideband SATCOM Operations Center, Spectral Operations Resource Center, Commercial Exploitation Team, and

Theater Missile Warning. Each section generally describes the capability, command and control arrangements if applicable, and how the capability is tasked. The next appendix details employment of Army Space Support Teams and is followed in the next appendix by a description of Space operation officer tasks when supporting an Army unit. The next appendix outlines Space support to the unit of employment – this is the Space Support Element. Then a set of diagrams showing SMDC Space organizations is given for information, and finally there is an appendix on normalizing, operationalizing and institutionalizing Space. This last appendix includes a section on the Army Space Master Plan.

The FM successfully underwent the Army-wide review process, and will be published this fall. Look for it on the SMDC Web site and the Reimer Digital Library Web site. We will spread the word when it is available.

As for the road ahead, since there are a number of important issues that are at a very dynamic stage right now, FDIC plans to post the first revision to the FM within about a year. The fact is, this was a difficult version to produce because Space capabilities are

so ubiquitous in their contribution to the Army, and they are not "owned" by SMDC or any single major command. There are multiple competing interests that are difficult to reconcile in this document, but the common drive for U.S. Army land warfighting dominance provides a unifying forum from which to progress.

Effectively establishing and communicating doctrinal principles and TTP for all of Army Space is a fast-moving objective requiring impatient persistence, and persist we will. If you have doctrinal issues you believe should be included, please give Richard Burks at FDIC at [richard.burks@smdc-cs.army.mil](mailto:richard.burks@smdc-cs.army.mil) an outline of your thoughts, or send them to the FDIC doctrine email which is annotated in the FM's preface, [fdiccd@smdc.army.mil](mailto:fdiccd@smdc.army.mil).

"Global power brings global responsibilities to our nation and the Army. Among its array of formidable capabilities designed to fulfill those responsibilities, the Army's Space reach is global, with assets and operations literally around the world." FM 3-14.00

Ed Zehner supports the Space and Missile Defense Command Force Development and Integration Center in Colorado Springs, Colo. He retired from the Air Force in 2001 after a tour on the Joint Staff. He commanded two launch squadrons at Vandenberg Air Force Base, Calif., was a satellite operator at Falcon Air Force Base, Colo., and a Minuteman III ICBM launch officer at F.E. Warren Air Force Base, Wyo.

**This article does not tell you  
what to think about Army Space  
Doctrine, it tells you  
how  
to think about it.**